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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,903	02/01/2005	Stephanie Frahn	264742US0X PCT	7011
22850 7590 03/02/2010 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER NERANGIS, VICKIE MARIE				
ART UNIT 1796		PAPER NUMBER		
NOTIFICATION DATE 03/02/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/522,903

Applicant(s)

FRAHN ET AL.

Examiner

Vickey Nerangis

Art Unit

1796

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,6,7,11-14 and 18-22 is/are pending in the application.
- 4a) Of the above claim(s) 14 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,6,7,11-13 and 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notes of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/12/2010 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
3. All outstanding rejections, except for those maintained below, are withdrawn in light of applicant's amendment filed on 2/12/2010.

Claim Rejections - 35 USC § 112

4. Claims 2, 6, 7, 11-13, and 18-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The rejection is adequately set forth in paragraph 5 Office action mailed on 11/9/2009 and is incorporated here by reference.

Claim Rejections - 35 USC § 103

5. Claims 2, 6, 7, 11-13, and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bock (US 6,020,419) in view of Hartmann (US 5,959,005) and Ettlinger (US 6,022,404).

Bock discloses a coating composition comprising 0.5-25 wt % based on solids of hydrophobic, pyrogenic silica, a binder such as one of polyester, and polyacrylate, polyol (col. 4, lines 13-26 and col. 5, lines 1-29), and surface-modified pyrogenic silica and solvent such as aromatic and aliphatic hydrocarbons (col. 6, lines 17-30). Additives are also used (col. 6, line 60 to col. 7, line 13). See examples.

Bock fails to disclose (i) the tamped density of the pyrogenic silica and (ii) silica treated with hexadecylsilyl groups.

With respect to (i), Hartmann discloses hydrophobicized pyrogenic silica and teaches that when silica is subjected to a destructing/compressing and grinding process, a silica is provided which has a tamped density of 50-300 g/L and has improved low-thickening properties, high degrees of filling and good mechanical strengths (col. 1, line 61 to col. 2, line 7). The exemplified silica has a tapped density of 188 g/L (col. 2, line 27).

Given that Bock discloses hydrophobicized pyrogenic silica and further given that hydrophobized pyrogenic silica is given advantageous properties upon destructing/compressing and grinding processes as taught by Hartmann, it would have been obvious to one of ordinary skill in the art to subject the silica of Bock to the processes of Hartmann and thereby arrive at composition comprising a silica having tamped density like claimed.

With respect to (ii), Bock teaches surface modification of pyrogenic silicas in order to provide for decreased agglomeration and increased stabilization (col. 3, lines 46-55) and

explicitly teaches that pyrogenic silica is treated with octyltrimethoxysilane or dimethyldimethoxysilane, which provides for octylsilyl and dimethylsilyl groups on the surface of the pyrogenic silica (col. 3, lines 60-67).

Ettlinger discloses surface-modified pyrogenically produced mixed oxides which are surface treated with a variety of silicon-containing compounds such as silanes and silazanes (abstract). Each of these compounds has an alkyl group bonded to the silicon which can have 1-20 carbon atoms (col. 1, lines 20-67).

Given that both Bock and Ettlinger both teach modifying the surface of a pyrogenic metal oxide with silanes and further given that Ettlinger teaches that a silane functionalized with methyl, octyl, and hexadecyl are functional equivalents, it would have been obvious to one of ordinary skill in the art to functionalize the surface of Bock's pyrogenic silica with hexadecyl silyl groups, absent a showing of unexpected or surprising results. Case law holds that the mere substitution of an equivalent (something equal in value or meaning, as taught by analogous prior art) is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable. See *In re Ruff* 118 USPQ 343 (CCPA 1958).

Response to Arguments

6. Applicant's arguments filed 2/12/2010 have been fully considered but they are not persuasive. Specifically, applicant argues (A) that the tamped density of 123-322 g/L is not new matter because the exact terms do not need to be used in the original application in order to satisfy the written description requirement and (B) that Bock fail to disclose a pyrogenic silica having attached to the surface thereof hexadecylsilyl groups.

With respect to argument (A), note that in Table 1 only Silica 1 and Silica 2 have attached to the surface thereof hexadecyl silyl groups. The tamped density for these silica is 123 and 146 g/L, respectively. Therefore, support is not had for the range of 123-322 g/L.

With respect to argument (B), the grounds of rejection in view of Bock have been modified to include Ettlinger which does teach hexyldecyl.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Nerangis whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/Vickey Nerangis/

Primary Examiner, Art Unit 1796